

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
9 October 2003 (09.10.2003)

PCT

(10) International Publication Number  
**WO 03/083631 A1**

- (51) International Patent Classification<sup>7</sup>: **G06F 1/20, H05K 7/20**
- (21) International Application Number: **PCT/GB03/01367**
- (22) International Filing Date: **28 March 2003 (28.03.2003)**
- (25) Filing Language: **English**
- (26) Publication Language: **English**
- (30) Priority Data:  
**0207382.3 28 March 2002 (28.03.2002) GB**
- (71) Applicant (for all designated States except US): **TEC-NIKON LIMITED [GB/GB]; Blue Coats House, Blue Coats Avenue, Hertford, Hertfordshire SF14 1PB (GB).**
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **DAY, Tony [GB/GB]; 8 The Brackens, Bush Hill Park, Enfield, Middlesex EN1 2JX (GB).**

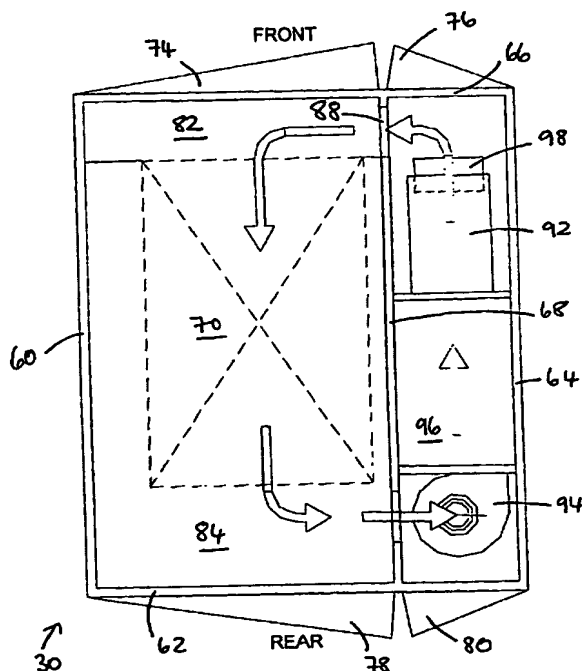
(74) Agents: **CUMMINGS, Sean, Patrick et al.; David Keltie Associates, Fleet Place House, 2 Fleet Place, London EC4M 7ET (GB).**

(81) Designated States (national): **AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.**

(84) Designated States (regional): **ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).**

[Continued on next page]

(54) Title: **IMPROVEMENTS IN COOLING OF A DATA CENTRE**



(57) Abstract: A cabinet for housing a vertical array of heat-producing units has an equipment chamber adapted to support the array such that the array cooperates with the cabinet in use to define a first plenum, the first plenum having an inlet for receiving a flow of cooling fluid and an outlet defined by a plurality of openings through the array whereby the first plenum communicates with the openings in use to exhaust substantially all of the flow of cooling fluid through the openings and hence through the array, wherein the inlet to the first plenum admits fluid to the first plenum in a substantially horizontal direction. Related methods and data centre installations are also disclosed and claimed.

WO 03/083631 A1